Fort River Elementary School

Feasibility Study – School Committee Presentation

November 27, 2018

TSKP STUDIO ARCHITECTURE | PLANNING | INTERIORS

Fort River School| Community Involvement

Presentation Goals:

1. Introduction to TSKP STUDIO
2. Update School Committee on Feasibility Study
3. Review the Options
4. Request Feedback

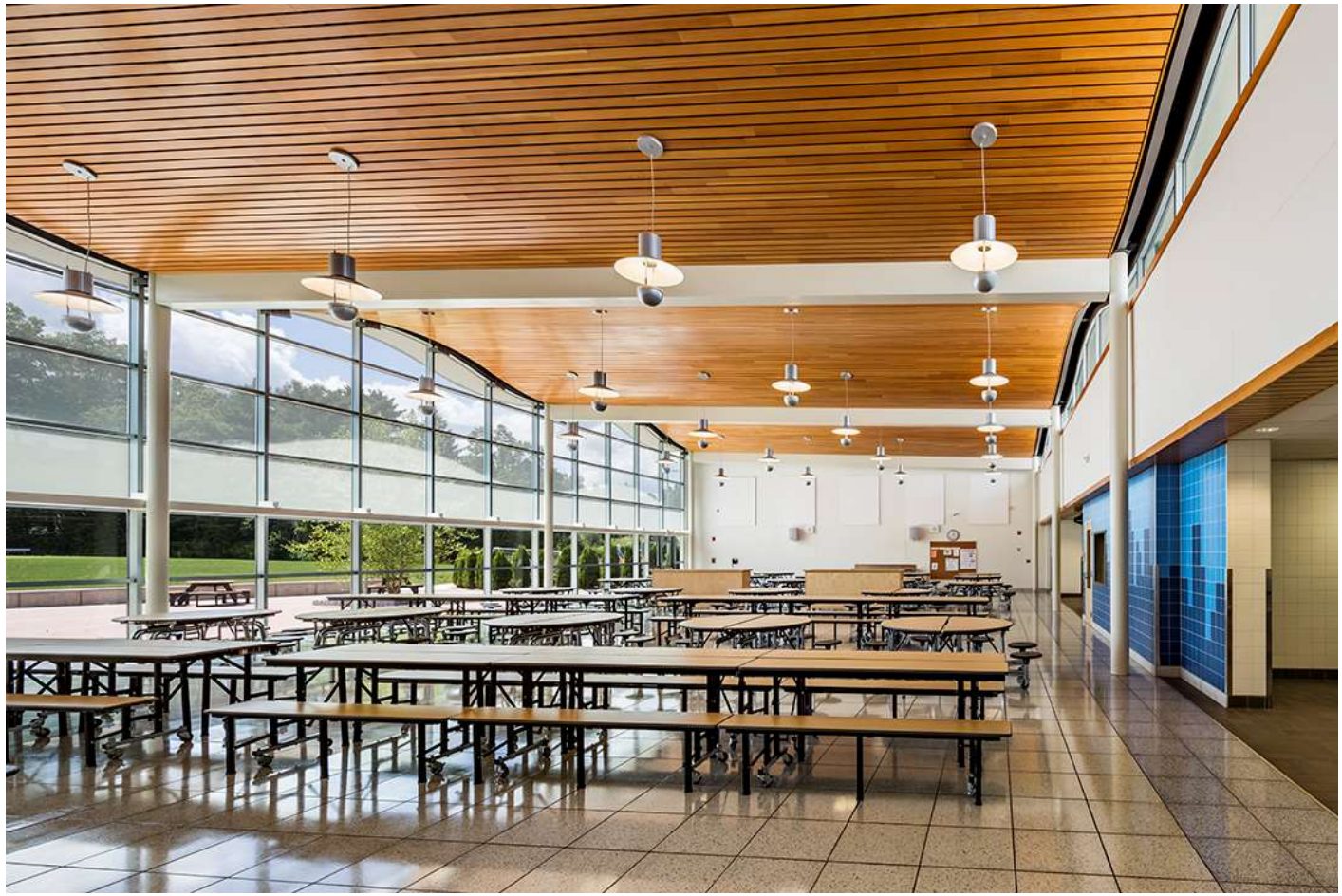
Design Quality | Simple… Child Friendly

Design Quality | Age Appropriate Scale

Design Quality | Natural Light… Welcoming

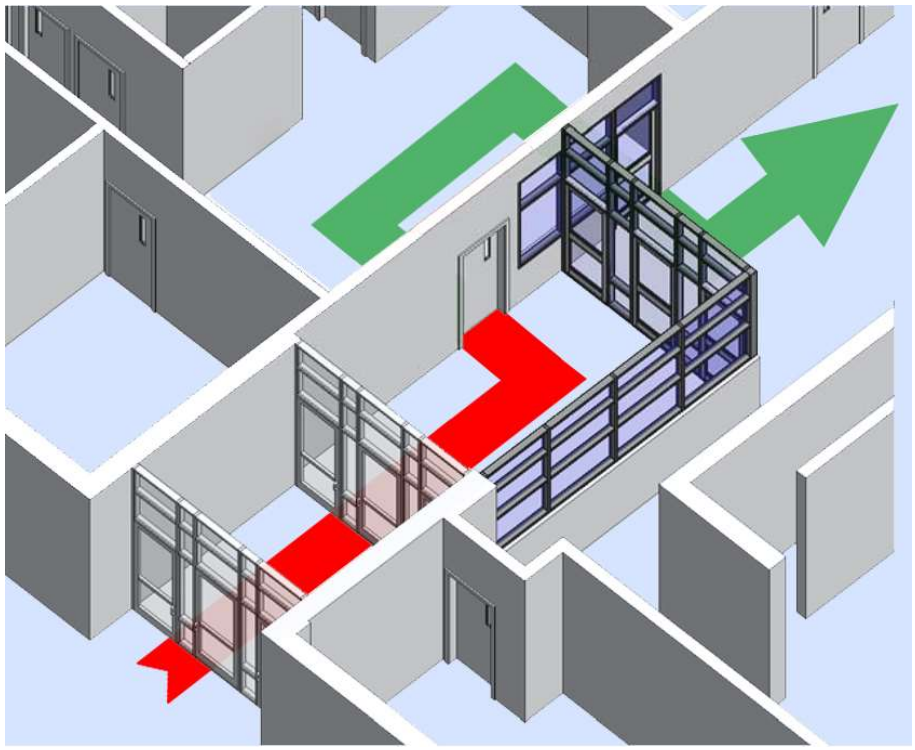
Design Quality | Multi-functioning Space

Design Quality | Beautiful and Durable



Design Quality | Connections to the Outdoors

Design Quality | Security + Safety

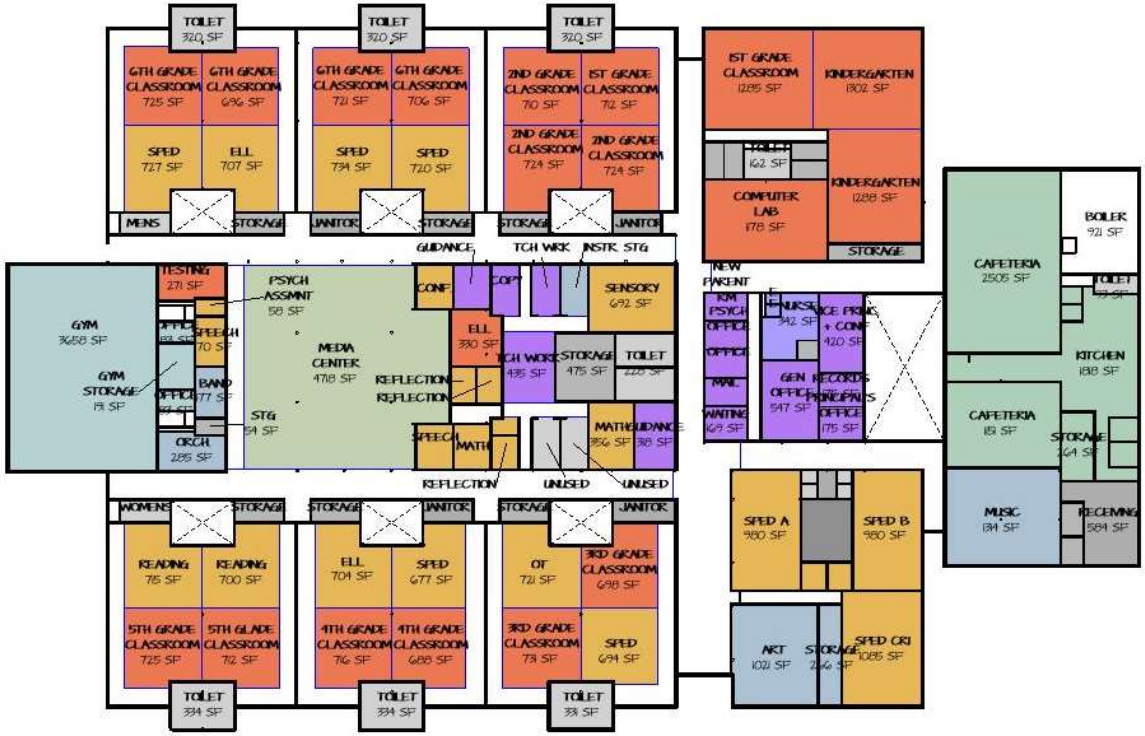


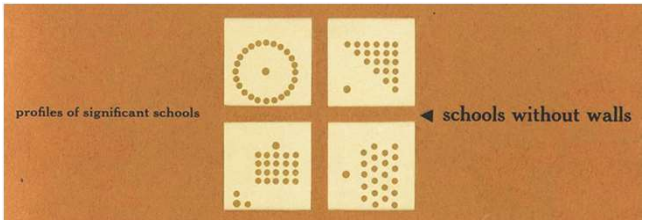
Existing Conditions Investigations

Existing Conditions| Summary

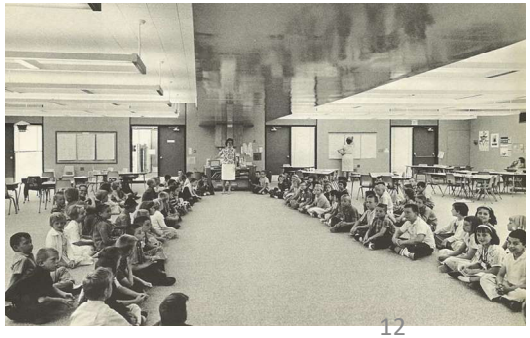
1. Deferred Capital Infrastructure Replacement Items
   - ✓ Roof
   - ✓ HVAC system
   - ✓ Electrical system
   - ✓ Window Replacement
2. Unsatisfied Educational Needs
   - ✓ Open Classrooms
   - ✓ Accessibility
   - ✓ Lighting
   - ✓ Communication Systems
   - ✓ Technology Infrastructure
   - ✓ Interior Environment
3. Security
   - ✓ Access Control
   - ✓ Passive Surveillance, Building Exterior hardening, Classroom Security

Existing Conditions| Summary





Educational Facilities Laboratories c. 1958, - "Schools Without Walls"



Existing Conditions| Open Classrooms

Existing Conditions| Daylighting

Educational Space Needs

Educational Space Needs| Right Size

	Fort River Study Range				MSBA guidelines
K-6 Enrollment	315 ←		→ 420		420
Pre-K Enrollment (FTE)	0	45	0	45	45
Total Enrollment	315	360	420	465	465
Total Building Gross Floor Area	70,000	77,000	78,000	84,000	72,742

Compared to MSBA guidelines:

Amherst Classroom Guidelines	4,725
District SE (AIMS, Bldg. Blocks)	5,917
Pre-K Administration and Support	1,743
MSBA guideline (adjusted)	85,127

Educational Space Needs| Fort River Rooms + Educational Program

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DRAFT

CORE ACADEMIC SPACES	
Pre-Kindergarten w/ toilet	3
Kindergarten w/ toilet	3
General Classrooms - Grade 1-6	18
Computer Lab / Maker Space	1
Break out Teaching Space (1 per grade 1-6)	6

SPECIAL EDUCATION	
Large group SE	1
Small group SE	2
Self-Contained SPED - toilet	3
AIMS Program	1
AIMS Program - Reflection Room	1
Building Blocks Program	2
Building Blocks Program - Reflection Room	2
ELL classrooms	2
Speech	2
Math	1
Assessment Room	1
Sensory	1
Office for ETL	1
Reflection Room	2
Reading	2
Occupational Therapy / Physical Therapy	1
Speech for PK	1
OT/PT for PK	1
Behavior Analyst for PK	1

ART & MUSIC	
Art Classroom - 25 seats	1
Art Workroom w/ Storage & kiln	1
Music Classroom / Large Group - 25-50 seats	1
Instrumental Music (6-8 students)	2

HEALTH & PHYSICAL EDUCATION	
Gymnasium	1
Gym Storeroom	1
Health Instructor's Office w/ Shower & Toilet	1

MEDIA CENTER	
Media Center / Reading Room	1

DINING & FOOD SERVICE	
Cafeteria / Dining	1
Stage	1
Chair / Table / Equipment Storage	1
Kitchen	1
Staff Lunch Room	1

MEDICAL	
Medical Suite Toilet	1
Nurses' Office / Waiting Room	1
Examination Room / Resting	2

ADMINISTRATION & GUIDANCE	
General Office / Waiting Room / Toilet	1
Teachers' Mail and Time Room	1
Duplicating Room	1
Records Room	1
Principal's Office w/ Conference Area	1
Principal's Secretary / Waiting	1
Assistant Principal's Office	1
Supervisory / Spare Office	1
Conference Room	1
Guidance Office	2
Guidance Office	1
Guidance Storeroom	1
Teachers' Work Room	2
Psychologist's Office	1
Parent Room	1
PK Coordinator w/Conf	1

CUSTODIAL & MAINTENANCE	
Custodian's Office	1
Custodian's Workshop	1
Custodian's Storage	1
Recycling Room / Trash	1
Receiving and General Supply	1
Storeroom	1
Network / Telecom Room	1

Sustainability and Net Zero

What makes it sustainable?

- Safe and Healthy
- Resource Efficient
- Flexible and Adaptable
- Durable and Maintainable

Massachusetts School Building Authority

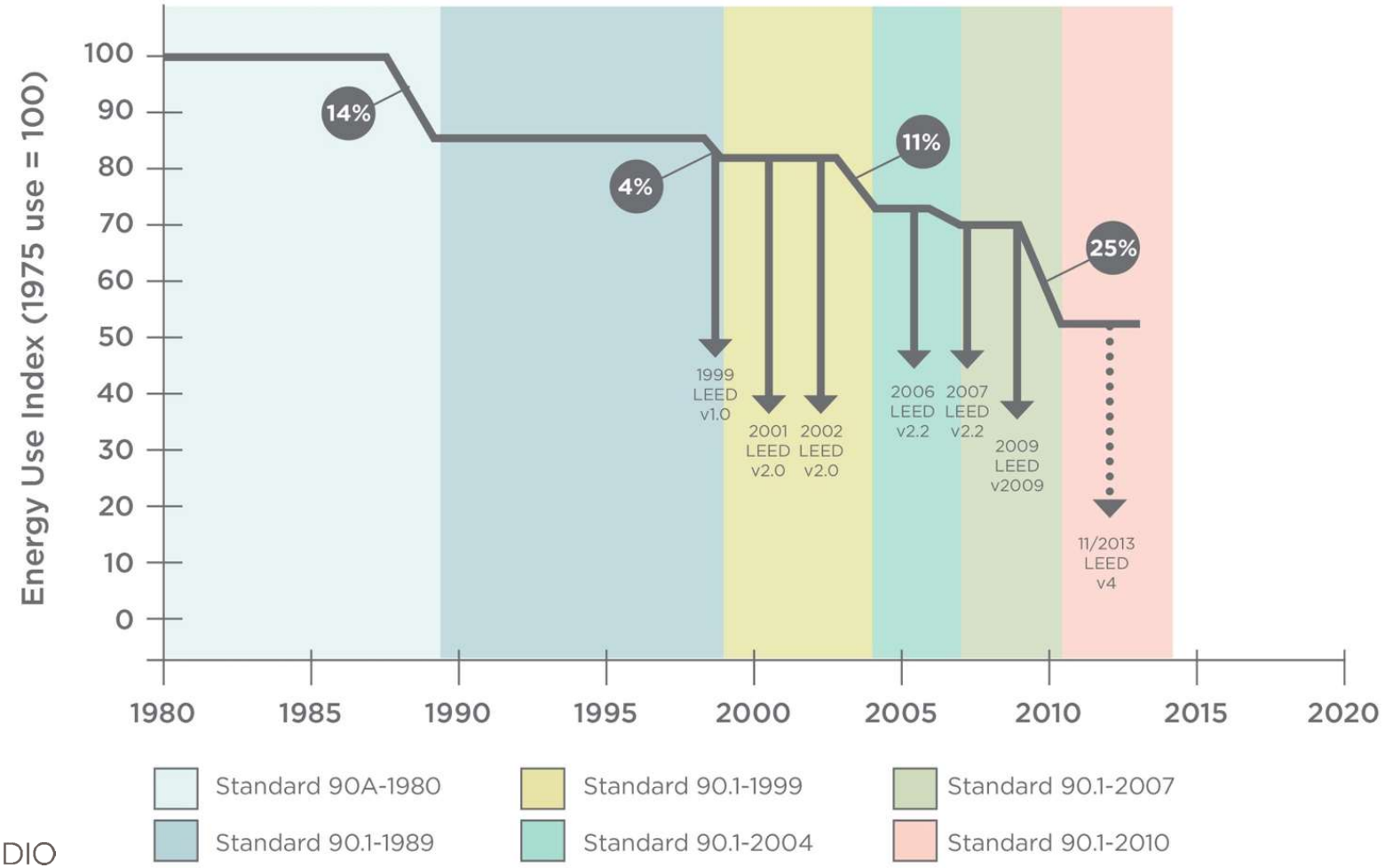
Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

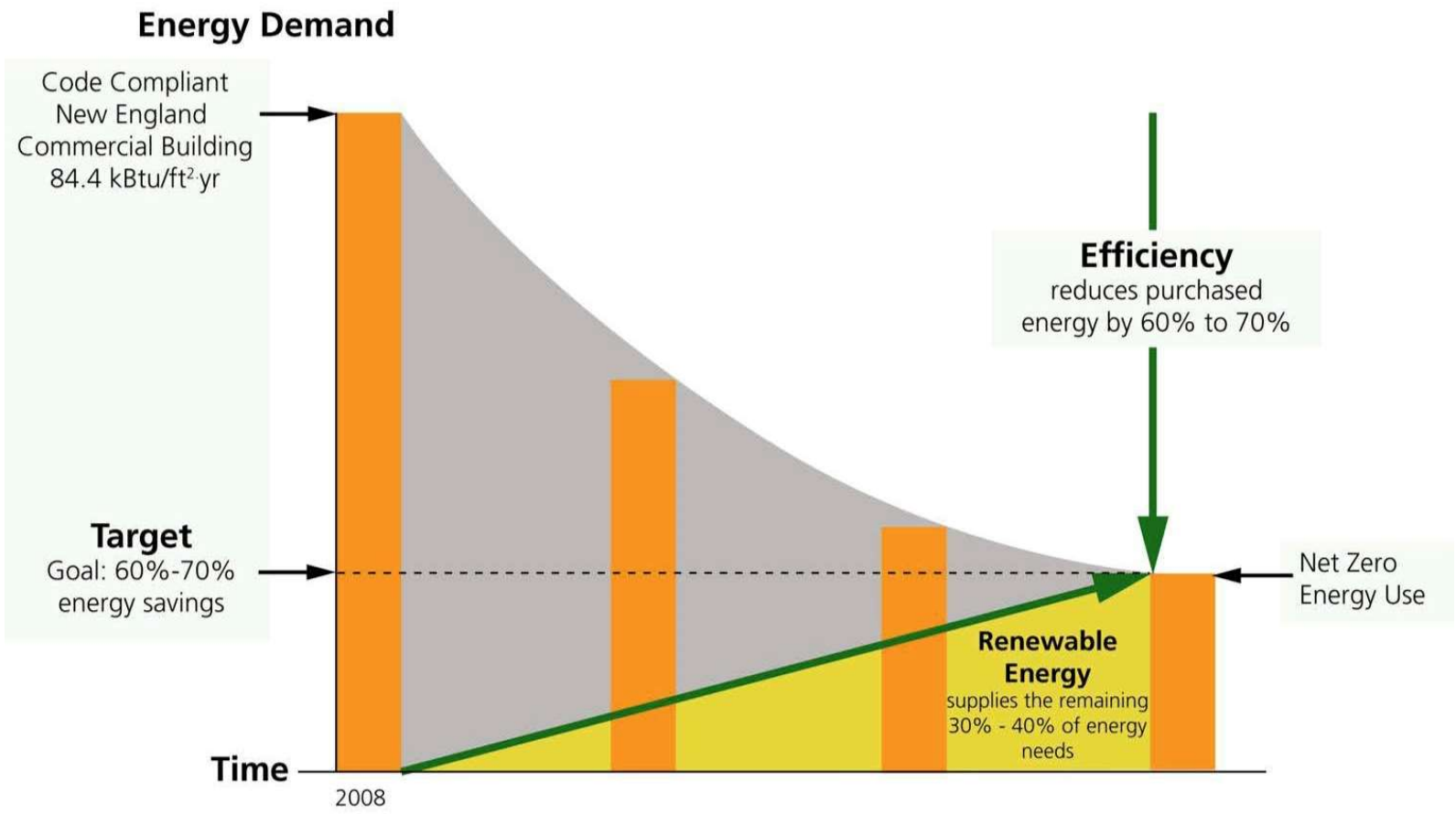
Minimum Requirements for funding:

1) LEED v4 Certified, or NE-CHPS Verified
2) 10% better than energy code

2% additional reimbursement for projects that can exceed energy code by at least 20%

Energy Codes and LEED Requirements





Source: Federal R&D Agenda for Zero-Net Energy high Performance Green Buildings, National Science and Technology Council, October 2008

Design Options

Design Options| Range of Options

NEW BUILDING

A

100% NEW

Simplest construction phasing

2 STORY ADDITION

B

50% NEW

1 STORY ADDITION

C

29% NEW

TWO SMALL ADDITIONS

D

18% NEW

SMALL ADDITION

E

7% NEW

BASE REPAIR

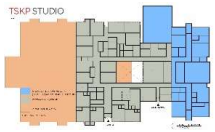
F

0% NEW

Complicated construction phasing

TSKP STUDIO

A



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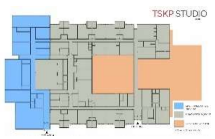

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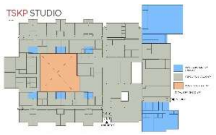

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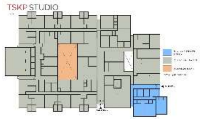


E

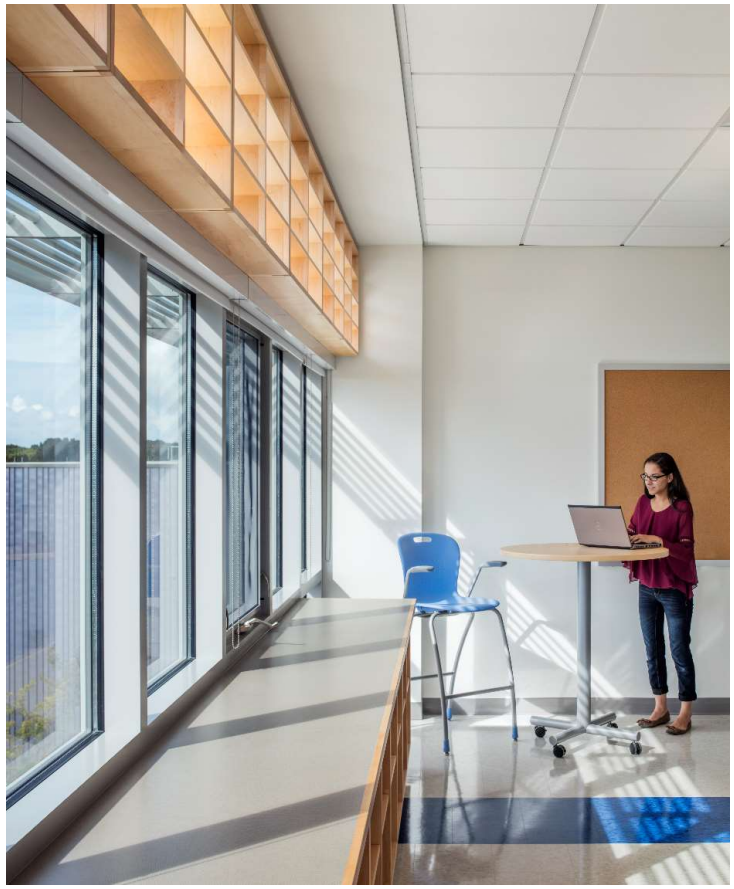
F

	NEW				2 STORY ADDITION				SINGLE STORY ADDITION				MULTIPLE SMALL ADDITIONS				SMALL ADDITION				CODE REPAIR	
	A	A.1	A.2	A.3	B	B.1	B.2	B.3	C	C.1	C.2	C.3	D	D.1	D.2	D.3	E	E.1	E.2	E.3	F	
ENROLLMENT	465	420	360	315	465	420	360	315	465	420	360	315	465	420	360	315	465	420	360	315	315	
% NEW	100	100	100	100	50	53	55	59	29	31	32	35	18	12	18	12	7	0	8	0	0	
PRE-K INCLUDED?	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	
PROJECT COST (HVAC SYS #1)																						
PROJECT COST (HVAC SYS #2)																						
PROJECT COST (HVAC SYS #3)																						
PROJECT COST (HVAC SYS #4)																						
PROJECT COST (HVAC SYS #5)																						
PROJECT COST (HVAC SYS #6)																						
PROJECT COST (WITHOUT NZ)																						

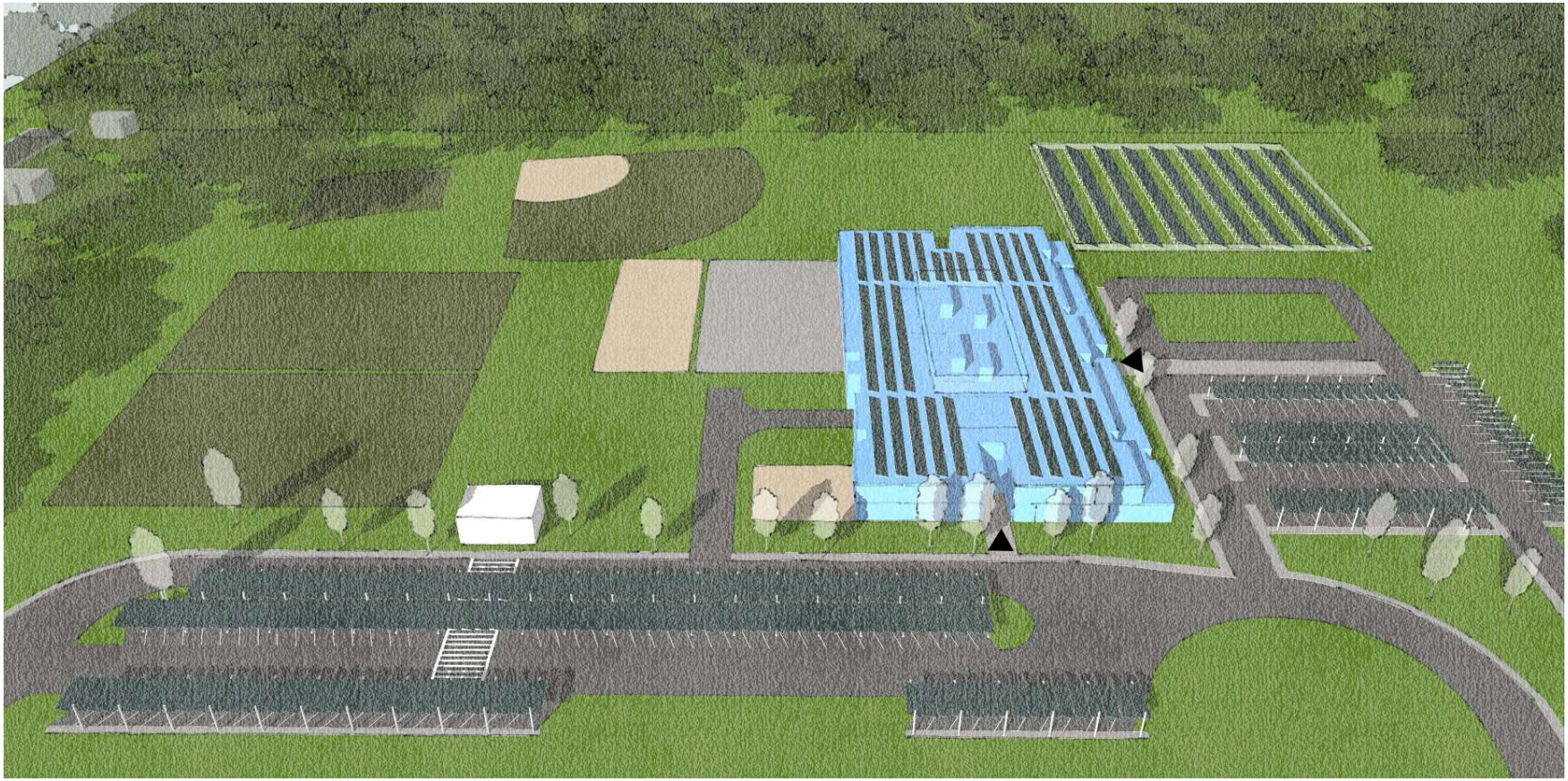
Design Options| Non-Negotiables

Included in Options A – E:

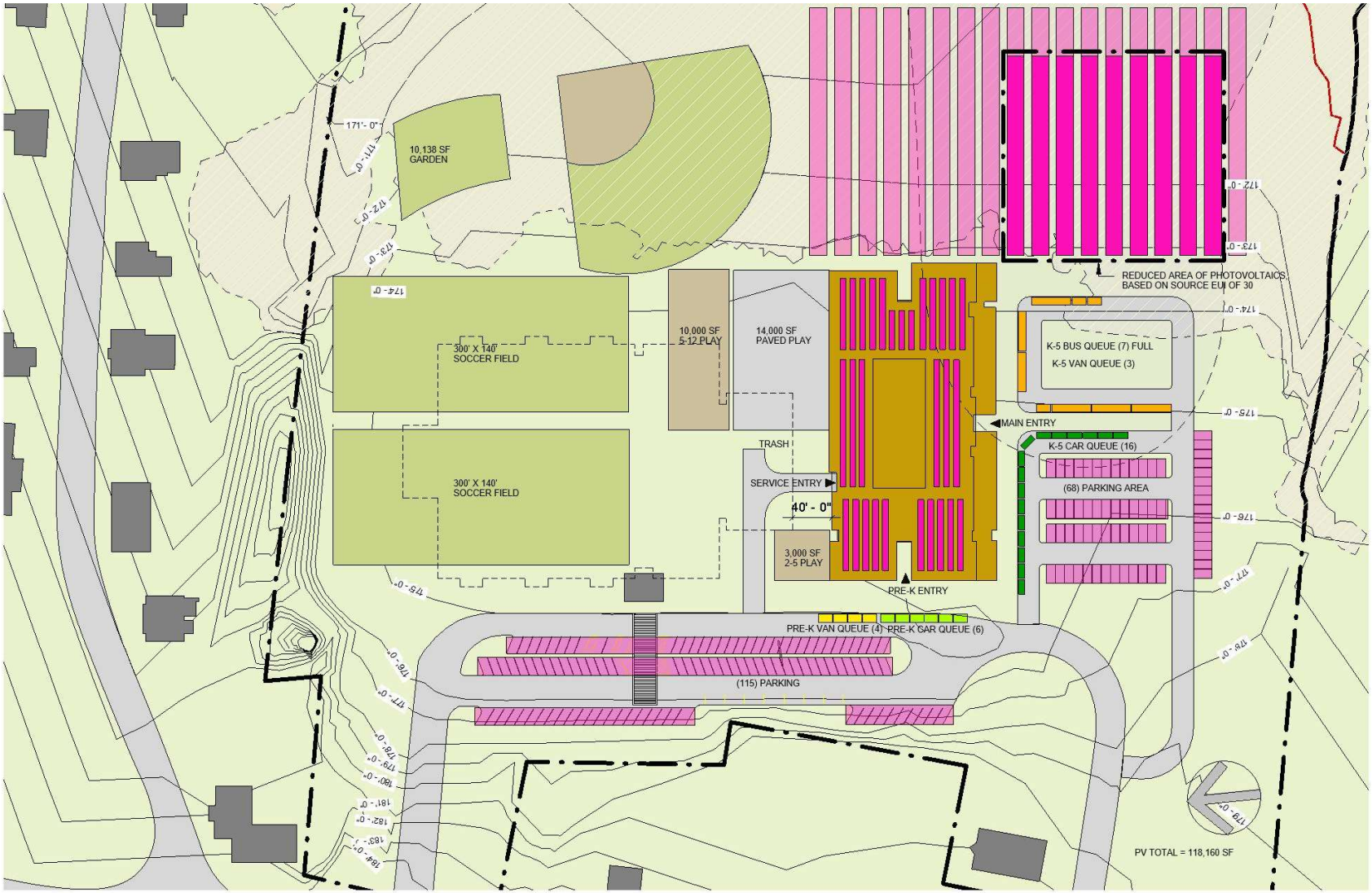
- ✓ Natural Light in all Classrooms
- ✓ Good air quality / ventilation / circulation
- ✓ Good Acoustics (ANSI S12.60)
- ✓ Elimination of open classroom design
- ✓ Compliance with Town's Net Zero bylaw
- ✓ Sustainable design
- ✓ Flexibility in case of increased enrollment in the future
- ✓ Adequate space for program needs
- ✓ Cost and Environmental analysis that includes construction, demolition, swing space, operations
- ✓ Accessible
- ✓ Building and Energy code compliance



100% NEW



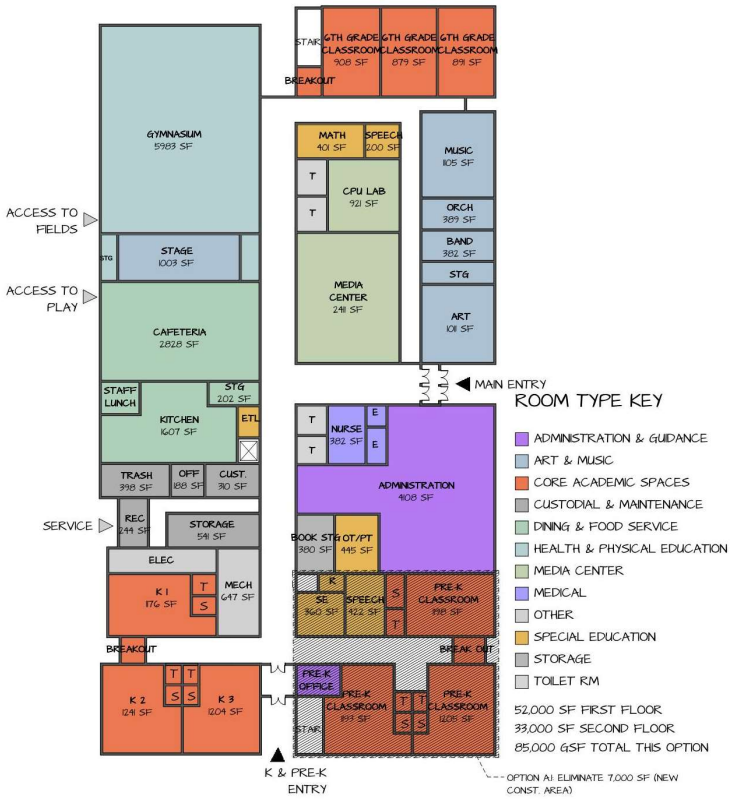
AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION A



AMHERST, FORT RIVER SCHOOL SITE PLAN OPTION A

TSKP STUDIO

03/29/18



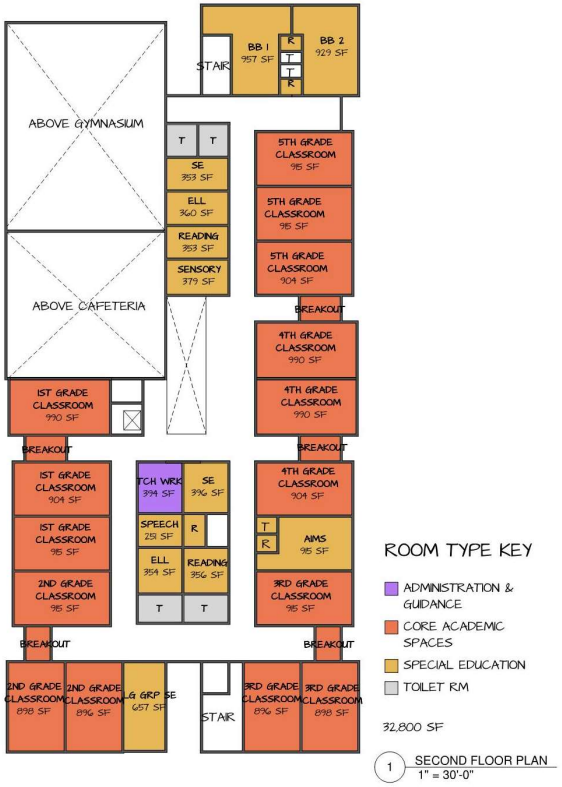
1 FIRST FLOOR PLAN
1" = 30'-0"

AMHERST, FORT RIVER SCHOOL

OPTION A, A.1

TSKP STUDIO

06/15/18



1 SECOND FLOOR PLAN
1" = 30'-0"

AMHERST, FORT RIVER SCHOOL

OPTION A, A.1

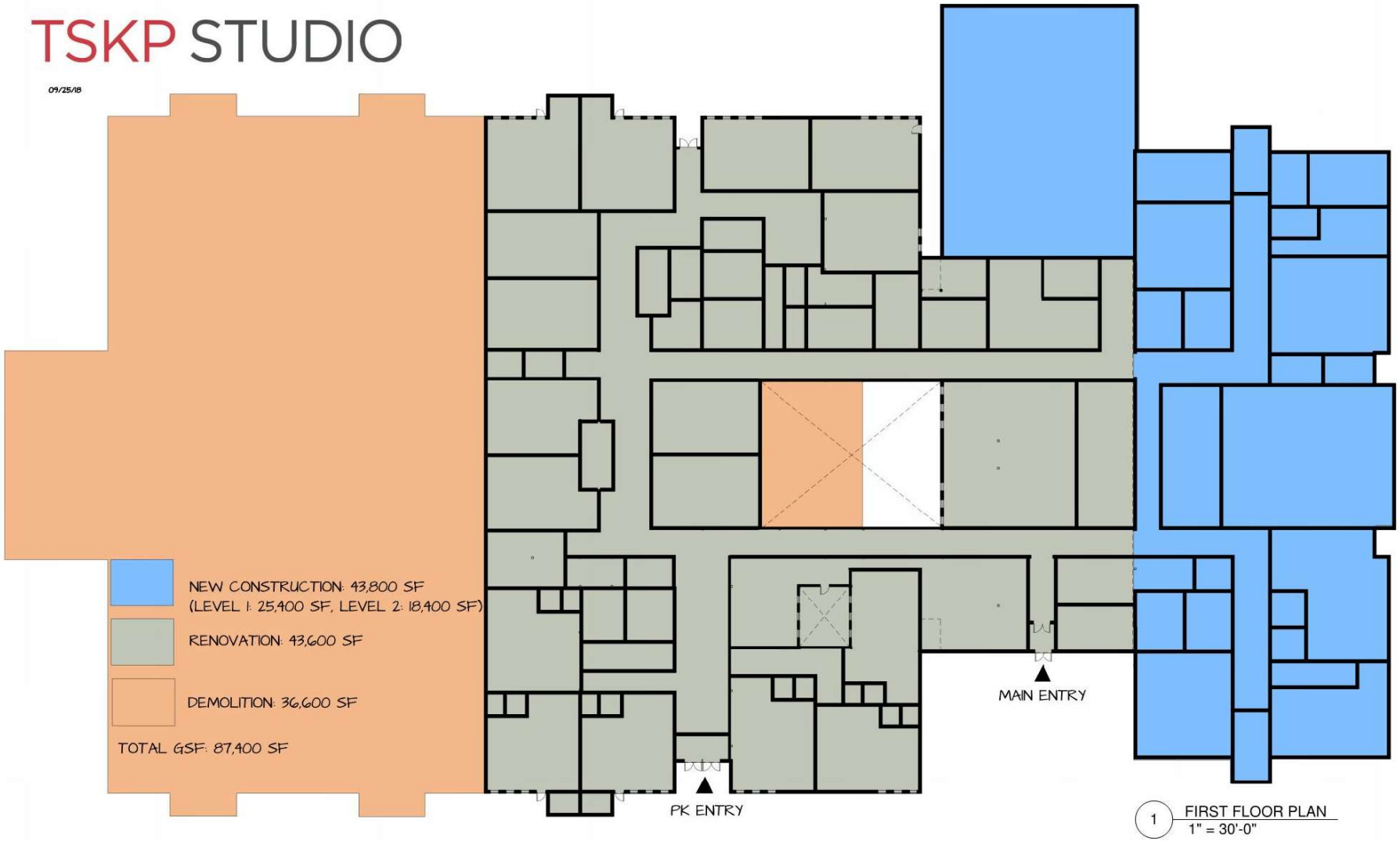
50% NEW

AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION B

AMHERST, FORT RIVER SCHOOL SITE PLAN OPTION B

TSKP STUDIO

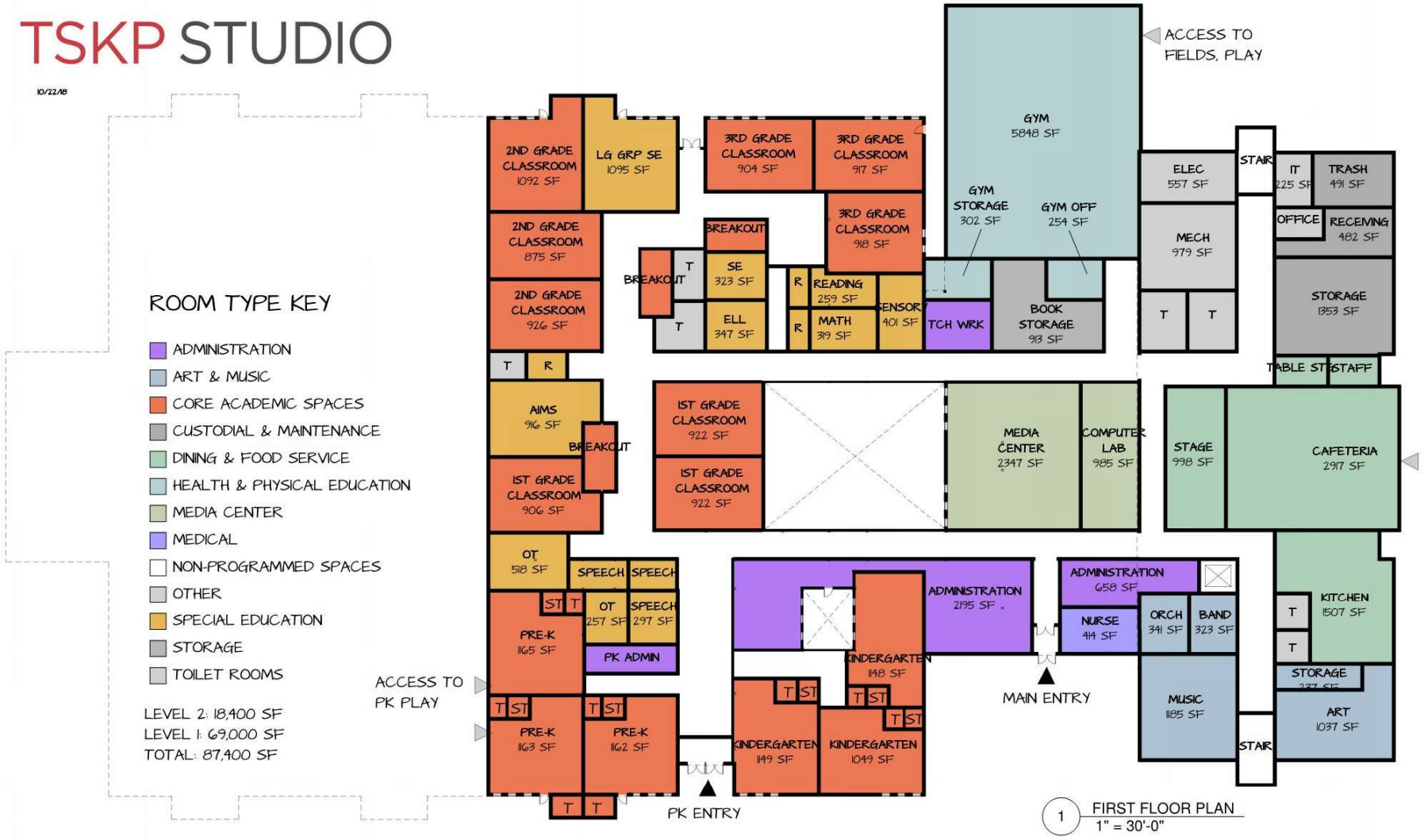
09/25/18



AMHERST, FORT RIVER SCHOOL NEW, RENO, DEMO, OPTION B

TSKP STUDIO

10/22/18



AMHERST, FORT RIVER SCHOOL

OPTION B, B.1

TSKP STUDIO

09/25/18

1 SECOND FLOOR PLAN
1" = 30'-0"

AMHERST, FORT RIVER SCHOOL

OPTION B, B.1

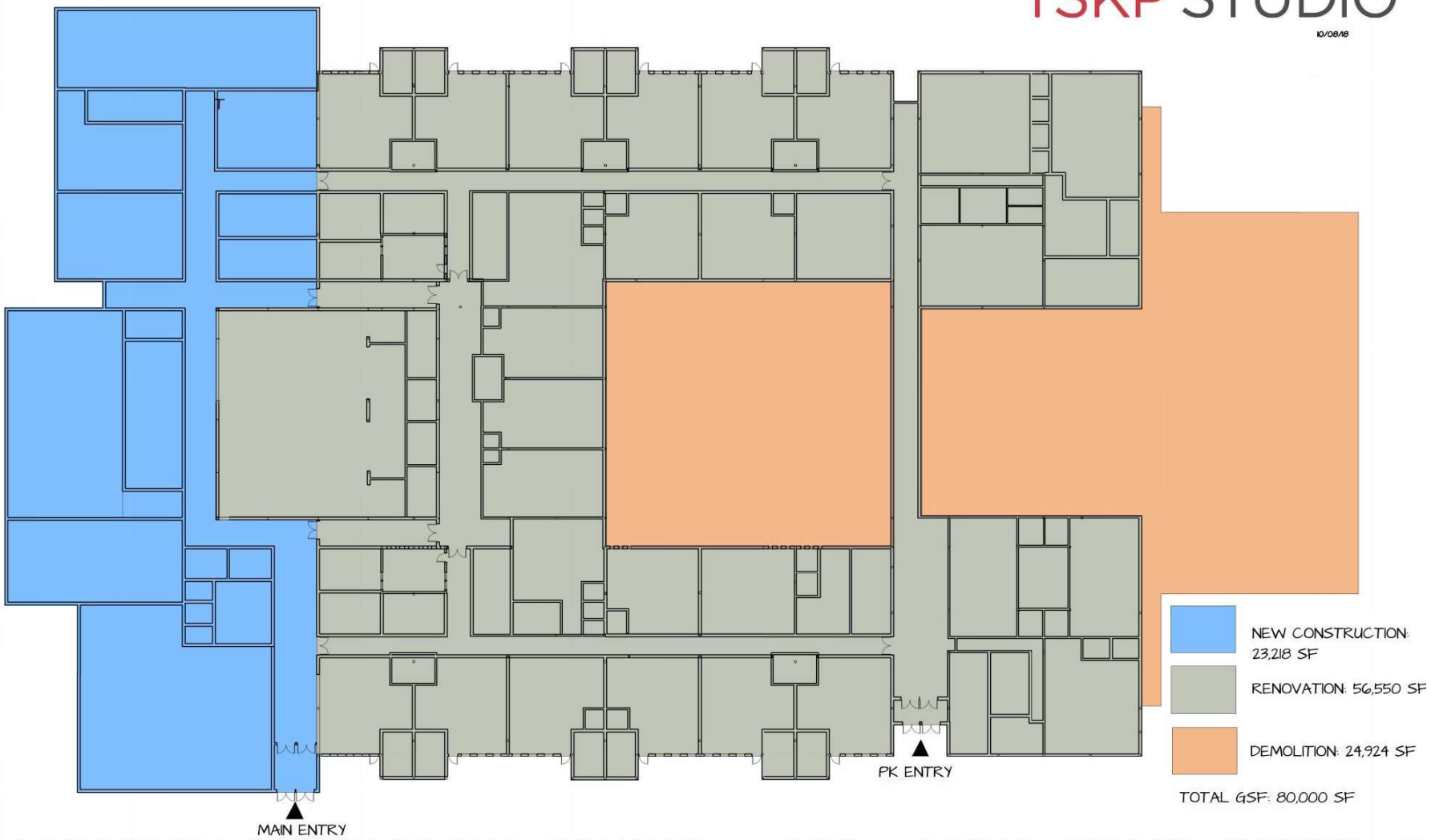
29% NEW

AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION C

AMHERST, FORT RIVER SCHOOL SITE PLAN OPTION C

TSKP STUDIO

10/08/18



AMHERST, FORT RIVER SCHOOL NEW, RENO, DEMO, OPTION C

AMHERST, FORT RIVER SCHOOL

OPTION C, C.1

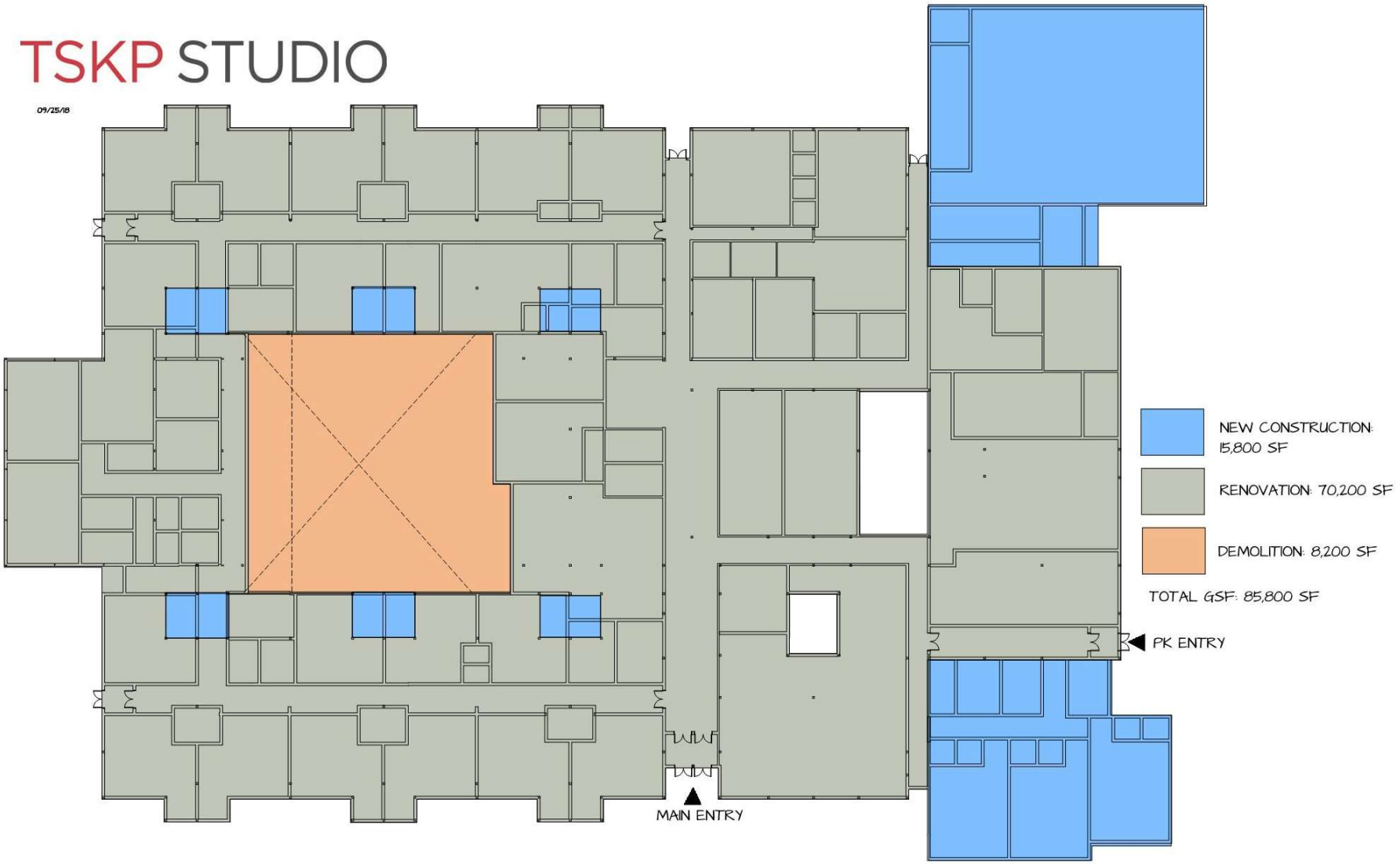
18% NEW

AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION D

AMHERST, FORT RIVER SCHOOL SITE PLAN OPTION D

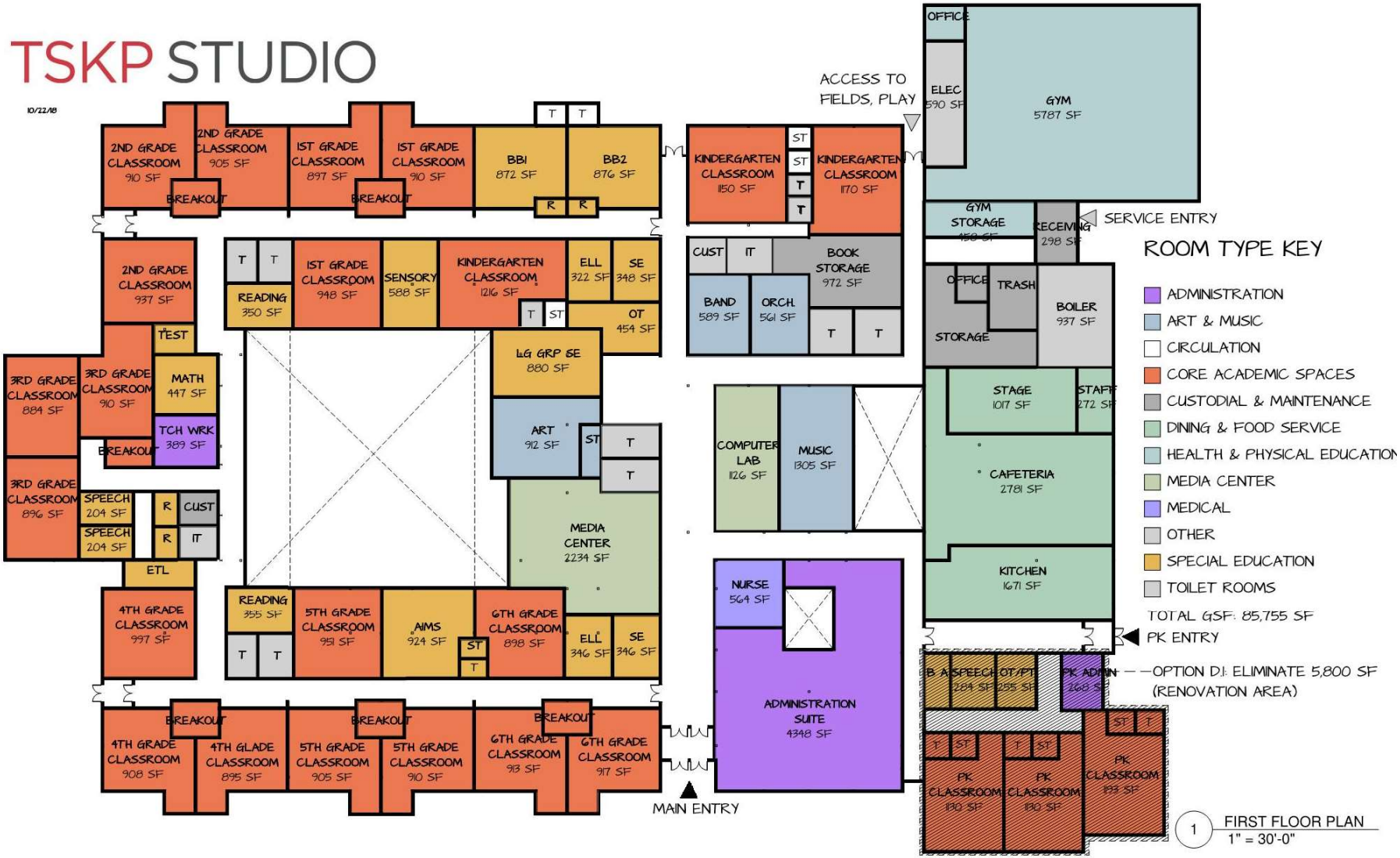
TSKP STUDIO

09/25/18



AMHERST, FORT RIVER SCHOOL NEW, RENO, DEMO, OPTION D

TSKP STUDIO



AMHERST, FORT RIVER SCHOOL

OPTION D, D.1

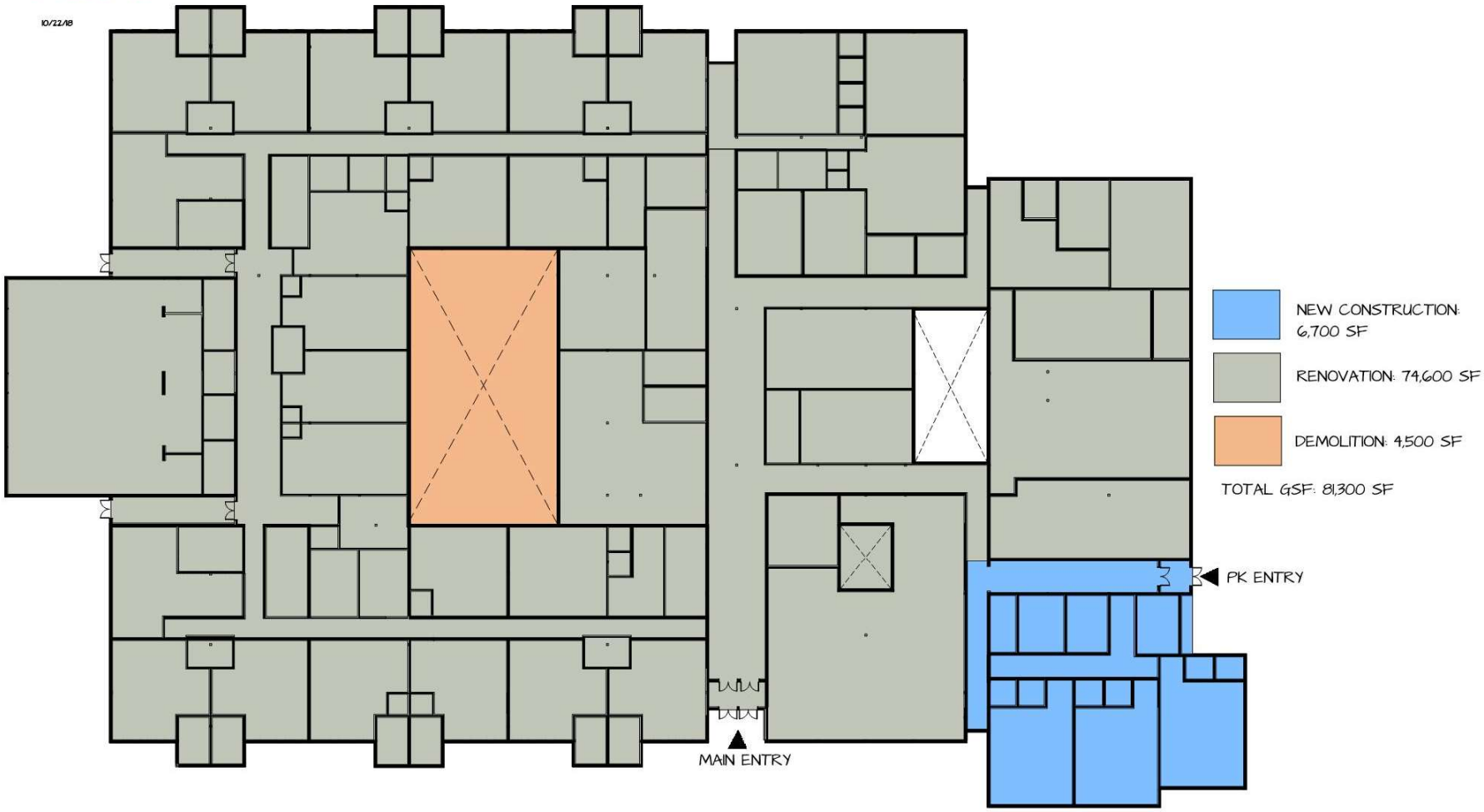
7% NEW

AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION E

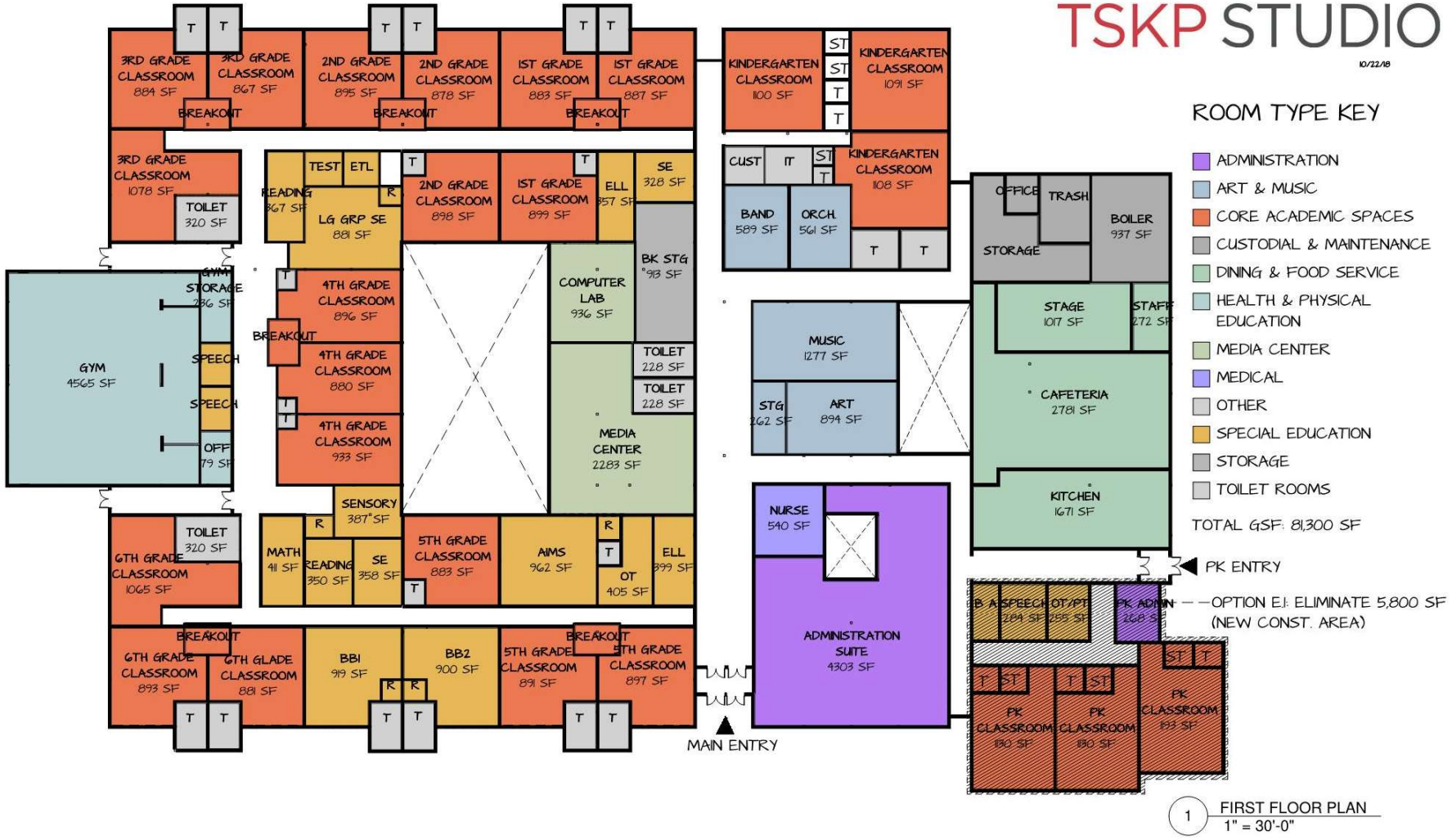
AMHERST, FORT RIVER SCHOOL SITE PLAN OPTION E

TSKP STUDIO

10/22/18



AMHERST, FORT RIVER SCHOOL NEW, RENO, DEMO, OPTION E



AMHERST, FORT RIVER SCHOOL

OPTION E, E.1

0% NEW

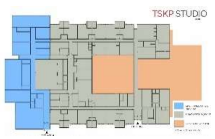
- Abatement
- Roof replaced
- Windows replaced
- Reconfigure restrooms, doors, walls, etc to be ADA accessible
- Replace mechanical systems. Keep existing boilers.
- Replace electrical, interior lighting, fire alarm.
- New Sprinkler System
- Ceilings and Floor finishes replaced.
- Re-paving existing asphalt areas and resetting granite curbing
- Replacing playground equipment and surfacing

AMHERST FORT RIVER SCHOOL AERIAL VIEW OPTION F

TSKP STUDIO

A

B



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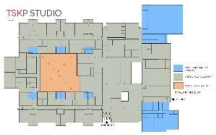
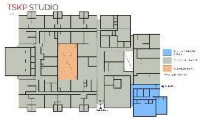


D



E

F

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PRE-K INCLUDED?	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	N	
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